

CLAIMS

What is claimed is:

5 1. A method for producing an image from image data comprising:
determining a pixel sampling rate for the image data;
comparing the pixel sampling rate to a desired sampling rate;
determining a shrink parameter based upon the comparison; and
processing the image data, including shrinking an input image based upon the
10 shrink parameter.

20 2. The method of claim 1, wherein the desired sampling rate is determined
by a Nyquist rate of sampling for the image.

15 3. The method of claim 1, wherein the desired sampling rate is determined
based at least on a point-spread function of the imaging system, or the frequency
content of the image data.

20 4. The method of claim 1, wherein the pixel sampling rate is determined
based upon a display field of view and a size of pixels in the field of view.

25 5. The method of claim 1, wherein the shrink parameter is a ratio of the
pixel sampling rate to the desired sampling rate when a redundancy metric is below a
predetermined threshold.

6. The method of claim 5, wherein the redundancy metric is the ratio of the
pixel sampling rate to the desired sampling rate.

7. The method of claim 6, wherein the threshold is unity.

8. A method for producing an image from image data comprising:
determining a desired sampling rate for the image data;
determining a pixel sampling rate for the image data;
comparing the pixel sampling rate to the desired sampling rate to determine a
redundancy metric; and
processing the image data based upon the redundancy metric.

9. The method of claim 8, wherein the image data is processed by shrinking
an image defined by the data by a shrink parameter based upon the redundancy metric.

10. The method of claim 9, wherein the shrink parameter is a ratio of the
pixel sampling rate to the desired sampling rate when a redundancy metric is below a
predetermined threshold.

15. The method of claim 8, wherein the image data is processed by
resampling the image data.

12. The method of claim 11, wherein the image data is resampled to match
the desired sampling rate.

20. The method of claim 8, wherein the desired sampling rate is a Nyquist
rate of sampling for the image.

25. The method of claim 8, wherein the desired sampling rate is determined
based at least on a point-spread function of the imaging system, or the frequency content
of the image data.

15. The method of claim 8, wherein the pixel sampling rate is determined
based upon a display field of view and a size of pixels in the field of view.

16. The system for processing image data, the system comprising:
a memory circuit for storing image data; and
a processing circuit for accessing the image data, determining a desired sampling rate for the image data, determining a pixel sampling rate for the image data, comparing the pixel sampling rate to the desired sampling rate to determine a redundancy metric, and processing the image data based upon the redundancy metric.

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17. The system of claim 16, wherein the processing circuit is configured to shrink an image defined by the data by a shrink parameter based upon the redundancy metric.

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18. The system of claim 17, wherein the shrink parameter is a ratio of the pixel sampling rate to the desired sampling rate when a redundancy metric is below a predetermined threshold.

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19. The system of claim 16, wherein the processing circuit is configured to process the image data by resampling the image data.

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20. The system of claim 19, wherein the image data is resampled to match the desired sampling rate.

21. The system of claim 16, further comprising a data acquisition system.

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22. The system of claim 21, wherein the data acquisition system is selected from a group consisting of a CT system, an MRI system, an ultrasound system, an X-ray system, a tomosynthesis system, and a PET system.

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23. A system for producing an image from image data comprising:
means for determining a pixel sampling rate for the image data;
means for comparing the pixel sampling rate to a desired sampling rate;
means for determining a shrink parameter based upon the comparison; and

means for processing the image data, including shrinking an input image based upon the shrink parameter.

24. A system for producing an image from image data comprising:

5 means for determining a desired sampling rate for the image data;

means for determining a pixel sampling rate for the image data;

means for comparing the pixel sampling rate to the desired sampling rate to determine a redundancy metric; and

means for processing the image data based upon the redundancy metric.

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25. A computer program for producing an image from image data comprising:

at least one computer readable medium; and

15 code stored on the at least one computer readable medium encoding routines for determining a pixel sampling rate for the image data, comparing the pixel sampling rate to a desired sampling rate, determining a shrink parameter based upon the comparison, and processing the image data, including shrinking an input image based upon the shrink parameter.

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26. A computer program for producing an image from image data comprising:

at least one computer readable medium; and

25 code stored on the at least one computer readable medium encoding routines for determining a desired sampling rate for the image data, determining a pixel sampling rate for the image data, comparing the pixel sampling rate to the desired sampling rate to determine a redundancy metric, and processing the image data based upon the redundancy metric.